

## **REMARKS/ARGUMENTS**

### **I. Status of Claims and Formal Matters**

Claims 1-8, 10 and 12-20 are pending in this application. Claims 1, 3, 5, 18 and 19 are proposed to be amended with this response. Claim 2 is canceled with this response. Claims 4 and 10 were previously canceled. Upon entry of the proposed amendments, claims 1, 3, 5-8, and 12-20 are pending with claims 1, 3, 5-8, 12-13 and 16-20 under active consideration.

The amendments to claims 1, 3, 5, 18 and 19 are fully supported by the specification as filed. Accordingly, no new matter is added by the proposed amendments. Applicant respectfully requests entry of the proposed amendments. Paragraph numbers are cited herein with reference to the published application.

### **II. Claim Objections**

At page 2 of the Office Action, the Examiner objected to claim 2 as being of improper dependent form for failing to further limit the subject matter of the previous claim.

Claim 2 is canceled with this amendment. Accordingly, the objection may be properly withdrawn.

### **III. Patentability Arguments**

#### **A. Claim Rejections**

#### **1) The Rejections of Claims 1-3, 5-8, 12, 13 and 16-20 under 35 U.S.C. § 112, Second Paragraph, Should Be Withdrawn**

Claims 1-3, 5-8, 12, 13 and 16-20 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly indefinite.

The Examiner alleges that claim 1 is indefinite because it apparently comprises two steps: (1) a first step in which an FSH substance, a GnRH antagonist, and LH are administered followed by (2) a second step in which an ML substance is administered. According to the Examiner, there is no relationship between the two steps other than the term “followed by” and it is unclear when the second step should follow the first in terms of timing or biological endpoint.

Applicants respectfully disagree. A rejection under 35 U.S.C. 112, second paragraph, is not properly made if one of ordinary skill in the art would understand the metes and bounds of what is claimed. Methods of controlled ovarian hyperstimulation (COH) were routine as of the priority date of the present invention. As is made clear by the present specification, one of ordinary skill in the art understood the biological purpose of administering an FSH substance, a GnRH antagonist and an ML substance in COH as well as the timing of administration of these agents in order to accomplish such a purpose: (1) an FSH substance is administered to stimulate (multiple) follicle growth and administration continues until the lead follicles reach mature size; (2) a GnRH antagonist is administered in order to prevent a premature LH surge and is generally administered for a period beginning prior to the moment when the largest developing follicle is 10 mm and ending when the lead follicles reach mature size (no pre-FSH suppression is necessary with a GnRH antagonist); and (3) a single, high dose of an ML substance is administered once the lead follicles reach mature size (e.g. one day after administration of the FSH substance and GnRH antagonist is discontinued) in order to mimic the LH surge and detach the eggs from the follicle walls to facilitate their removal via, e.g. aspiration (*see* present specification, paragraph [0038]). The present specification teaches the unexpected result (as exhaustively discussed in Applicants' previous responses) that co-administration of an LH substance during administration of the GnRH antagonist enables higher implantation and pregnancy rates. Moreover, the present specification teaches specific preferred dosages and administration regimens for each of the aforementioned substances. In view of knowledge in the art and the teachings of the present disclosure, Applicants believe claim 1 does not lack clarity.

The Examiner alleges that claim 2 is indefinite for failing to state when in the method of claim 1 the additional steps are to be performed. Applicants herein cancel claim 2 rendering this rejection moot.

The Examiner alleges that claim 3 is indefinite because (a) claim 1, from which it depends, has two possible steps of administering LH and it is unclear to which claim 3 refers. Applicants herein amend claim 1 to recite an "LH substance" providing antecedent support for the term "said LH substance" in claim 3. Accordingly, it is clear which step of claim 1 is referred to by claim 3; (b) it is not clear as to a liter of *what* the LH level is measured. Claim 3

states “female’s blood serum concentration of LH substances at a level equivalent to more than 1 I.U. LH/litre.” It is clear from the language of claim 3 that the term “litre” refers to the female’s blood serum. Nonetheless, Applicants have amended claim 3 to explicitly recite this, support for which may be found in the present specification at paragraph [0028]; and (c) claim 1 recites a daily sub-q dose of LH between 1 and 40 IU per Kg bodyweight, whereas claim 3 represents dosage as “more than 1 IU LH/litre of blood serum”, and it is not clear how to reconcile the two limitations. Applicants believe that there is nothing incompatible between the two limitations. The limitation of claim 1 recites a specific dosage to be administered based on the female’s weight. The limitation of claim 3 requires that the female be administered a dosage such that the concentration of LH is more than 1U LH/litre of blood serum, which is easily quantified by the skilled clinician. Such a dosage is expected to fall within the range of LH recited by claim 1. For the same reason, claim 16 does not lack clarity.

The Examiner alleges that claims 5, 18, and 19 are indefinite because there is no antecedent basis in claim 1 for measurement of ovarian follicles. Applicants have amended claims 5, 18, and 19 to replace the term “the” with the term “a”. The measurement of ovarian follicles, as recited in claims 5, 18 and 19, finds inherent basis in the recitation of “follicular development” in claim 1.

The Examiner alleges that claim 13 is indefinite because it recites administration of all three active agents of the first part of the claim daily and it is not clear whether they are all administered on the same days or on different days/regimes. Applicants believe that it is clear from the plain language of claim 13, for the reasons discussed above for claim 1, that whenever each of the recited substances is administered, that substance is administered daily. It is clear to one of ordinary skill in the art, and is discussed extensively throughout the present specification, that the substances need not be administered on the same day.

In view of the amendments proposed herein and the aforementioned arguments, Applicants believe that the pending claims are in compliance with 35 U.S.C. § 112, second paragraph. Accordingly, Applicants respectfully request withdrawal of the rejections. In case the Examiner is not in agreement, Applicants respectfully request that the Examiner suggest amendments that the Examiner believes would overcome the rejections.

**2) The Rejections of Claims 1-3, 5-8, 12, 13 and 16-20 Under 35 U.S.C. § 112, First Paragraph, Should Be Withdrawn**

Claims 1-3, 5-8, 12, 13 and 16-20 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, according to the Examiner, precursors of ganirelix or cetorelix, as recited in claim 1, are not described in the specification as originally filed and are not described in the patent literature. Applicants herein amend claim 1 to remove reference to precursors of ganirelix or cetorelix. Accordingly, the rejections under 35 U.S.C. § 112, first paragraph, may be properly withdrawn and such withdrawal of respectfully requested.

**3) The Rejections of Claims 1, 2, 6-8, 12-13, and 18-20 Under 35 U.S.C. § 102(e) Should Be Withdrawn**

Claims 1, 2, 6-8, 12-13 and 18-20 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Hillier et al., U.S. Patent No. 7,341,989 (hereinafter “Hillier”). Applicants respectfully traverse this rejection.

According to the Examiner, Hillier “merits a foreign priority date of 12/12/2001.” The Examiner is in error in according a foreign priority date to Hillier under § 102(e). *See, e.g.* MPEP 2136.03(I) (“Foreign applications’ filing dates that are claimed (via 35 U.S.C. 119(a)-(d), (f) or 365(a)) in applications, which have been published as U.S. or WIPO application publications or patented in the U.S., may not be used as 35 U.S.C. 102(e) dates for prior art purposes”). Thus, the earliest priority date for which Hillier may be applies under § 102(e) is the international filing date of Sept. 12, 2002.

The present application, on the other hand, validly claims priority under § 119(a) of EP 02077221.6, filed June 7, 2002 and a certified copy of the foreign priority document was filed with the USPTO on December 7, 2004. Thus, the present application validly claims priority to a foreign application having a filing date (June 7, 2002) that antedates the earliest priority date of Hillier under § 102(e) (Sept. 12, 2002).

Because Hillier is unavailable as prior art against the present application under 35 U.S.C. 102(e) (or under any other section), Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102(e).

**4) The Rejections of Claims 3, 5, 16, and 17 under 35 U.S.C. § 103(a) Should Be Withdrawn**

Claims 3, 5, 16, and 17 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable Hillier. Applicants respectfully traverse this rejection.

For the reasons discussed above, Hillier is unavailable as prior art against the present application and therefore cannot serve as the basis of rejections under 35 U.S.C. § 103(a). Accordingly, Applicants respectfully request that the rejections under this section be withdrawn.

**CONCLUSION**

Applicants respectfully submit that the instant application is in good and proper order for allowance and early notification to this effect is solicited. If, in the opinion of the Examiner, a telephone conference would expedite prosecution of the instant application, the Examiner is hereby respectfully invited to contact the undersigned attorney at the number listed below.

Respectfully submitted,

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Dated: August 27, 2009

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